



U S Department of Agriculture
Forest Service
Southeastern Area
State & Private Forestry

FOREST PEST MANAGEMENT

Report No. 81-3-12

Issued: 6/29/81

AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, SHENANDOAH NATIONAL PARK, VIRGINIA

LAND OWNERSHIP OR SURVEY AREA: Department of Interior
National Park Service
Shenandoah National Park

STATE: Virginia

AREA WITHIN SURVEY BOUNDARY: 190,420 acres

DATE: June 22, 1981

PERCENT COVERAGE: 100%

AIRCRAFT: Cessna 182

CREW: C.W. Dull, David Haskell, Jon March

REPORT PREPARED BY: C.W. Dull

SURVEY OBJECTIVES

To detect the presence of forest insect and disease activity within the Shenandoah National Park. Timing of this survey coincided with the period of maximum gypsy moth, Lymantria dispar (Linnaeus), defoliation, if present.

SURVEY RESULTS

Large areas of defoliation were observed within the Park. A total of 11,160 acres were defoliated, of which 1,875 were classified as heavy defoliation. Specimens sent to the field surveillance lab at the Doraville Field Office prior to the aerial survey were identified as - linden looper Erannis tiliara (Harr.) and phigalid looper Phigalia titea (Cram.). On site examinations also revealed the typical "shot hole" defoliating pattern of the fall cankerworm and spring cankerworm. All larvae had pupated before the ground checks. Defoliated areas would tend to mask the areas of actively feeding gypsy moth larvae, if present. However, no evidence of gypsy moth was observed within the Park during this survey. Figures 1-3 illustrate the areas of defoliation classified as light, moderate, and heavy. This was the second consecutive year of heavy defoliation around the Pocosin Cabin area at Mile Post 60 on the Skyline Drive. This defoliation was again highly visible from the Skyline Drive and Appalachian Trail which passes through this area.

CONCLUSION

Forest insect and disease activity does not pose a serious threat to the timber or recreational values within the park at this time. Defoliated trees observed

during this survey had already begun to refoliate and should no longer detract from the aesthetic values along the Skyline Drive. In areas of heavy defoliation, growth loss and branch dieback may occur. In the area around Mile Post 60 within a climax oak-hickory forest type on the Skyline Drive some tree mortality may be expected. Normally, native parasites and predators keep these insect populations in check. National Park Service personnel should continue field surveillance within the Park especially within the heavily defoliated areas.

For additional information, contact:

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or

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Fig. 1 - Results of Forest Insect and Disease Aerial Detection Survey, June 22, 1981. Hardwood defoliation classified as L - light, M - moderate and H - heavy.

Scale 1:63,360 or 1 inch = 1 mile

Contour Interval 100 Feet

Shenandoah National Park

LEGEND

First Class Roads	Yellow Blazed Trails	Not marked and maintained for public use
Second Class Roads	Unmarked Trails	For emergency use only
Third Class Roads	Building	Church
Fourth Class Roads	Cabin	Shelter
Park Service Roads	Entrance Station	Range Station
Appalachian Trail	Stream and Falls	Spring
Park Service Trails	County Boundary	
Blue Blazed Trails	Park Boundary	

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Prepared by the Shenandoah National Park, based on U.S.G.S. 7.5' topographic, and
aerial photography, and maps by P.A.T.C. members and the Shenandoah National
Park Rangers, with special monitoring by Ranger Districts. The symbols by
C.W. Brown and R.C. Hartschneider, edited by E.H. Walker, Chairman.

Dedicated to the enjoyment of all who visit this section of the Shenandoah National Park to preserve the Appalachian Trail and other
scenic, and to replace those who were the previous visitors, the
region, and the preservation of nature.

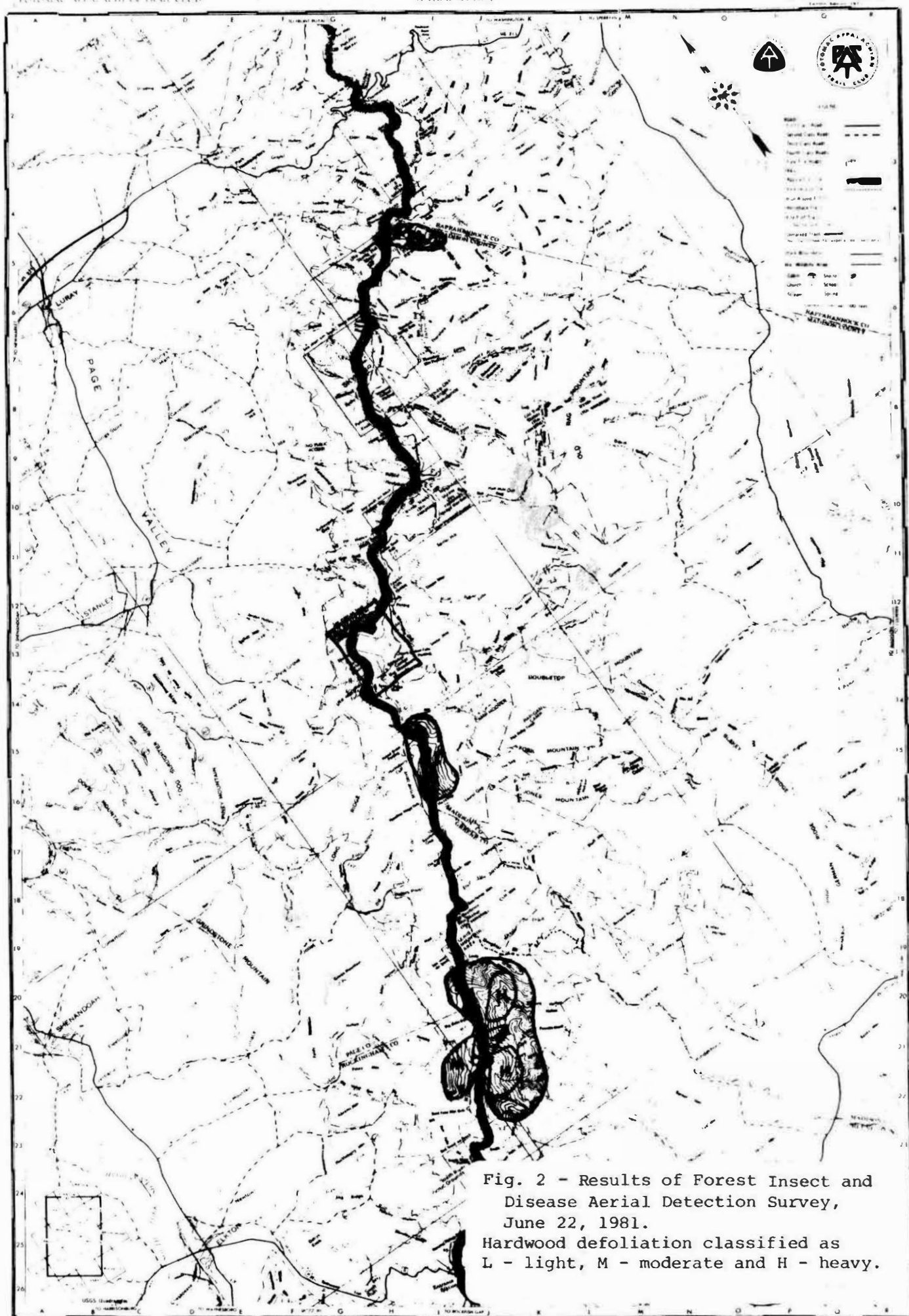


Fig. 2 - Results of Forest Insect and Disease Aerial Detection Survey, June 22, 1981.

Hardwood defoliation classified as L - light, M - moderate and H - heavy.

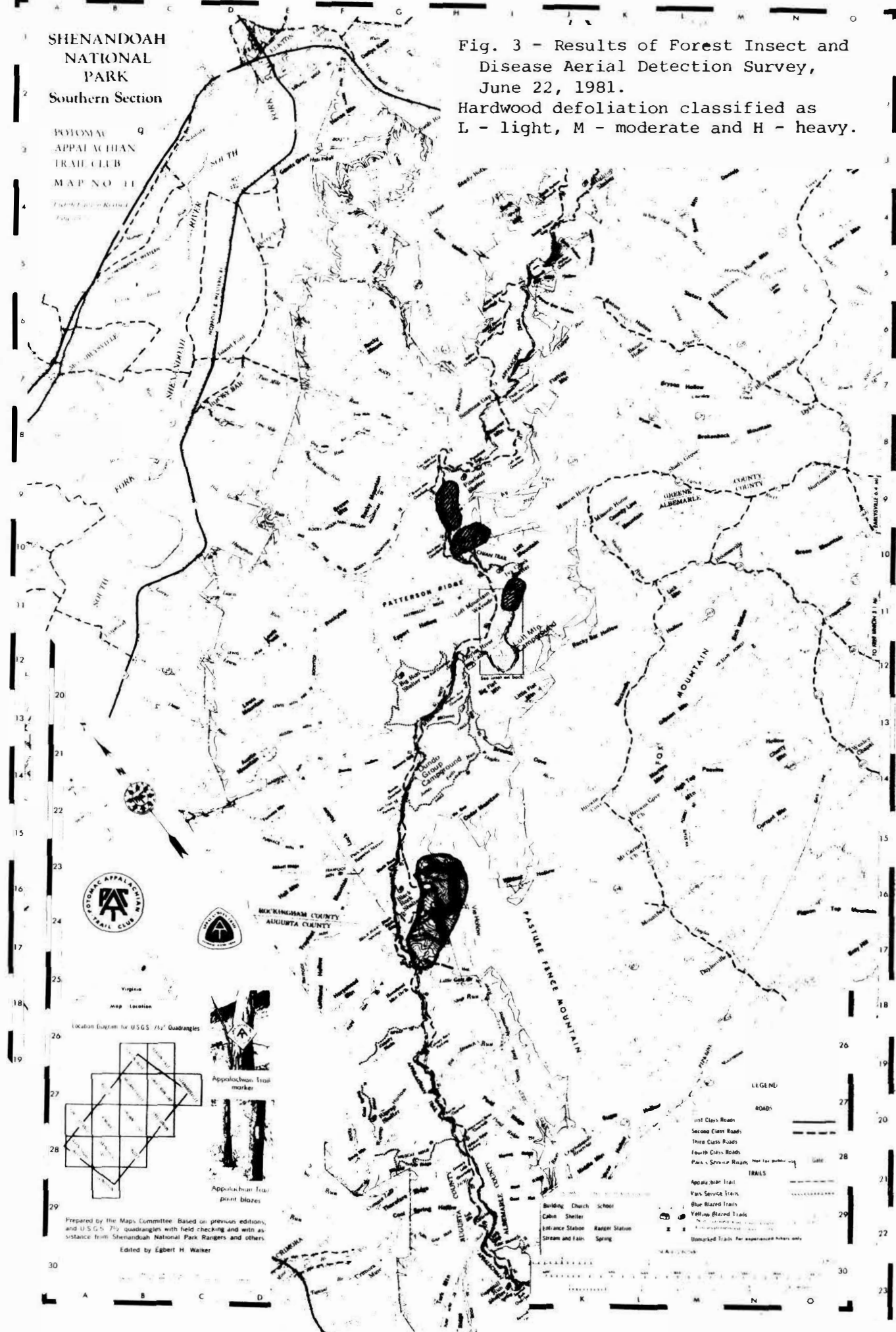
SHENANDOAH NATIONAL PARK

Southern Section

POTOMAC
APPALACHIAN
TRAIL CLUB
MAP NO. 11

Topographic Revision
1978

Fig. 3 - Results of Forest Insect and
Disease Aerial Detection Survey,
June 22, 1981.
Hardwood defoliation classified as
L - light, M - moderate and H - heavy.



Prepared by the Maps Committee. Based on previous editions,
and USGS 7 1/2 degree quadrangles with field checking and with as-
sistance from Shenandoah National Park Rangers and others.
Edited by Egbert H. Walker